NOAA Climate Science & Services Monthly Climate Update

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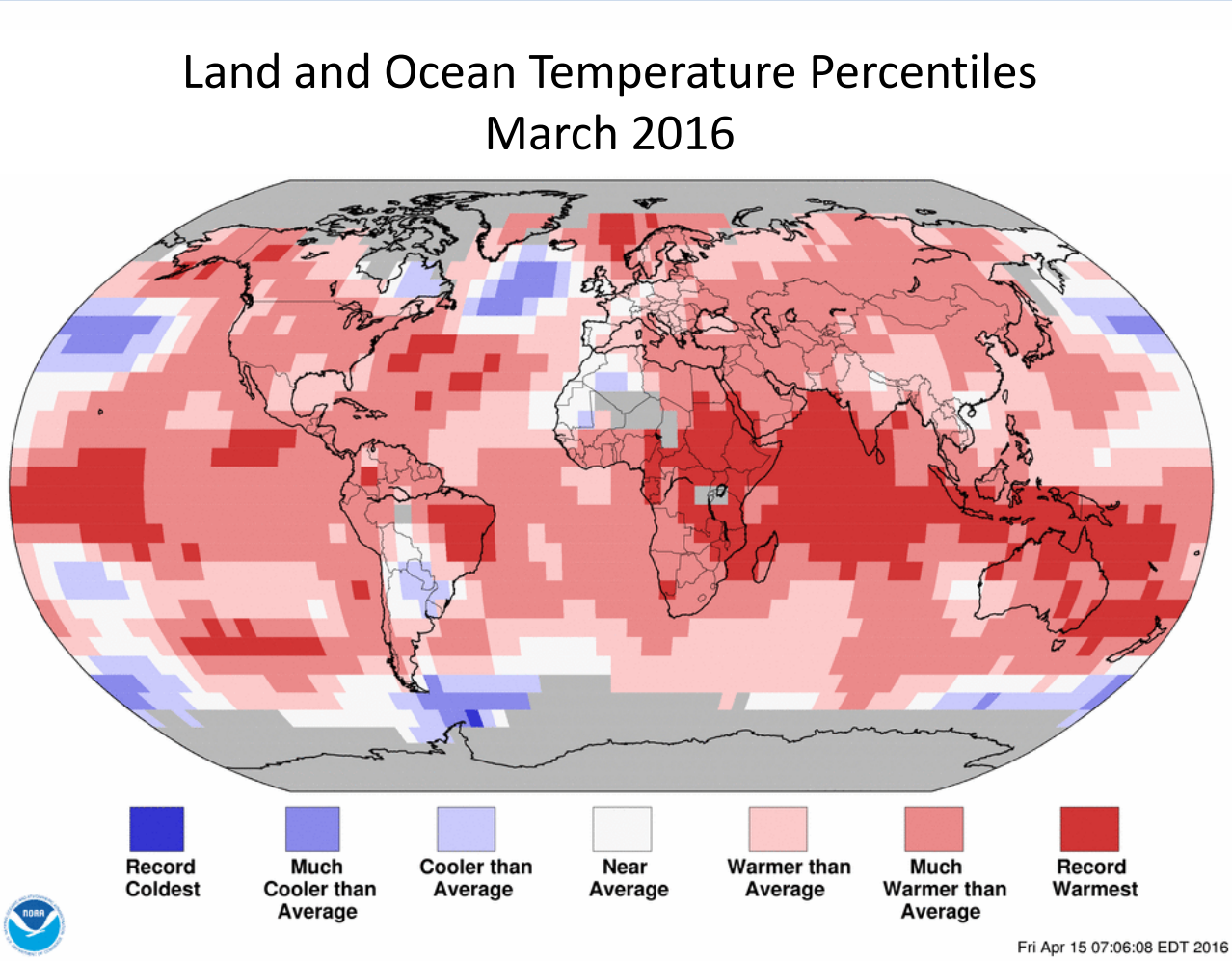
April 2016

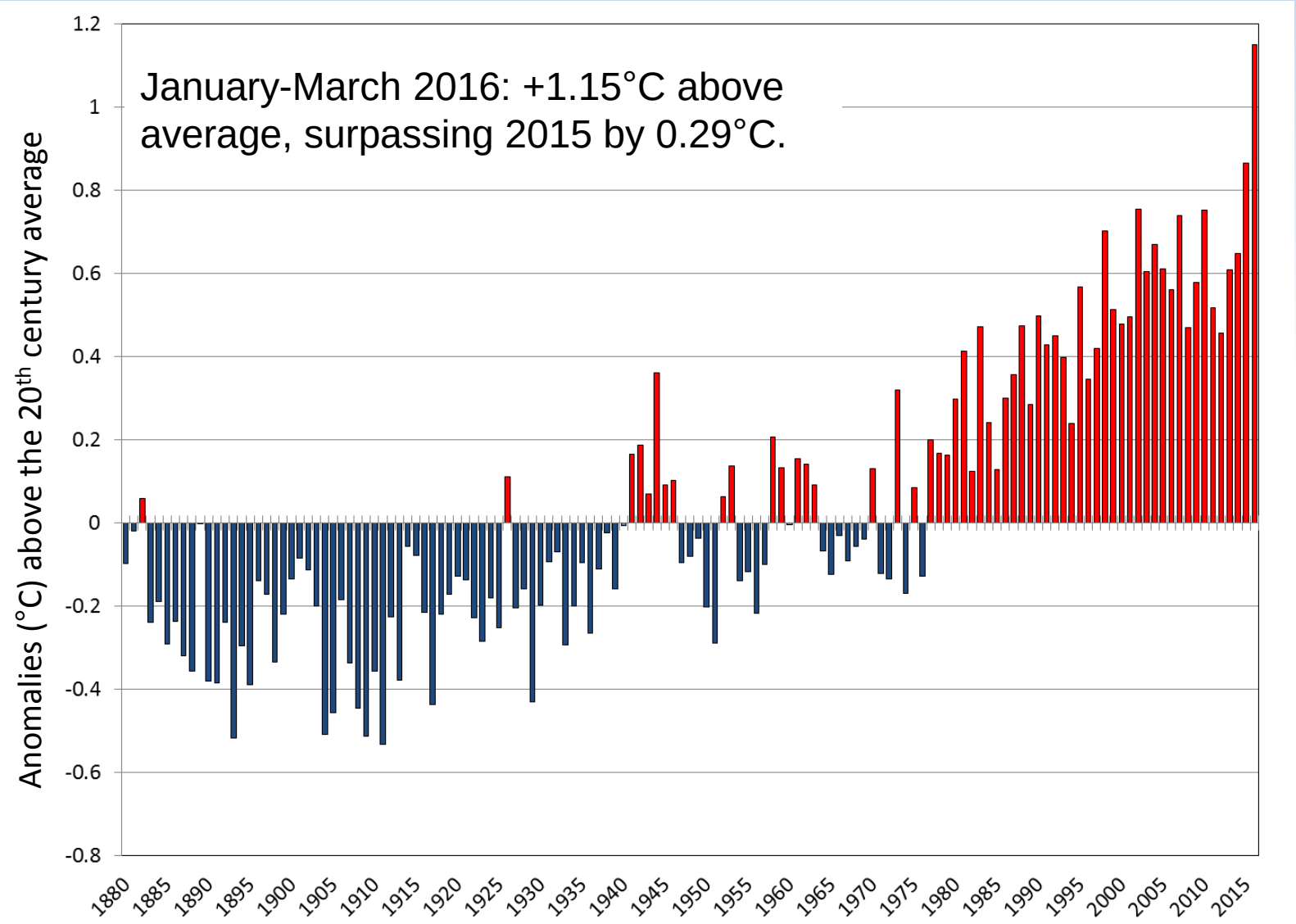
Global Temperature: March 2016

- March +1.22°C above 20th century average
  - Warmest March on record
  - 11th consecutive record warm month
  - Largest monthly departure from average
- Land: +2.33°C
  - Warmest March on record
  - Largest monthly departure from average
- Ocean: +0.81°C
  - Warmest March on record



The global temperature record dates to 1880 (137 years)

Global Temperature: Jan-Mar 2016

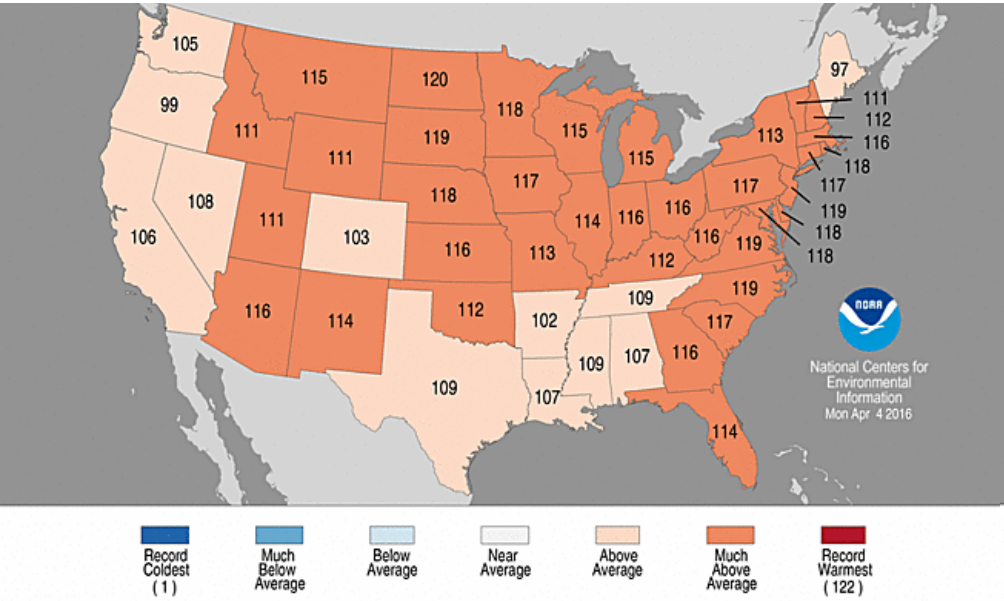


Contiguous U.S. March 2016

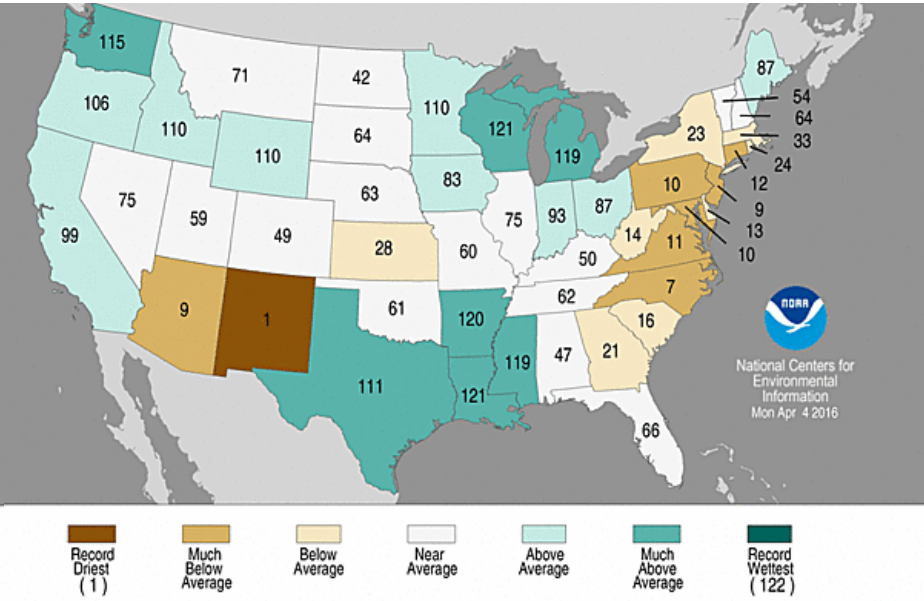
Temperature: 47.5°F, +6.0°F, 4th warmest March on record

Precipitation: 2.89”, +0.38”, 26th wettest March on record

Statewide Temperature Ranks March 2016
Period: 1895-2016 (122 years)



Statewide Precipitation Ranks, March 2016
Period: 1895-2016 (122 years)



- Every state was warmer than average.
- Much-above-average temperatures across the Rockies, Great Plains, Midwest, and East Coast.
- There were 22x more warm daily temperature records than cold daily temperature records

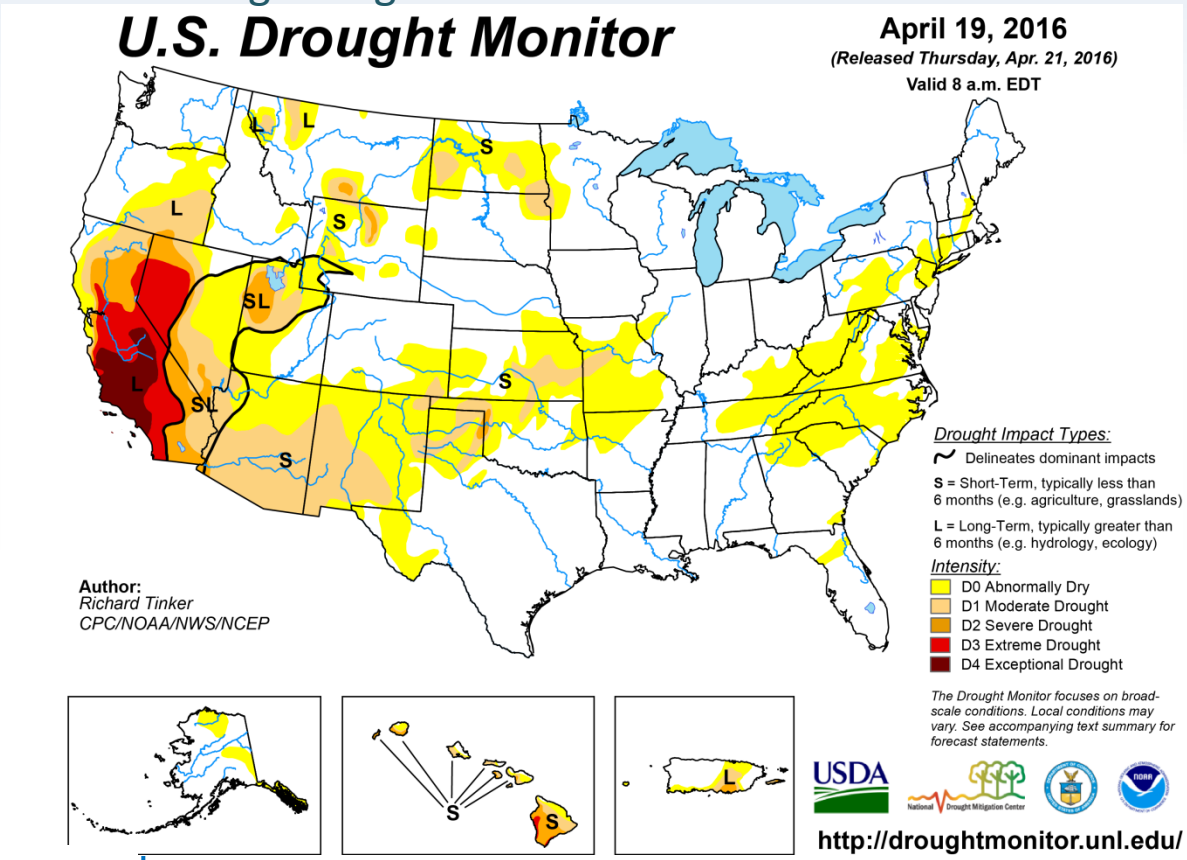
- West Coast, Southern Plains, Lower Mississippi Valley, and Midwest were wetter than average.
  - Record floods in AR, LA, MS, and TN.
- Drier than average along East Coast.
- Southwest was dry, where New Mexico was record dry with only 8% of average precipitation.

Current U.S. Drought

15.4 of Contiguous U.S. in Drought

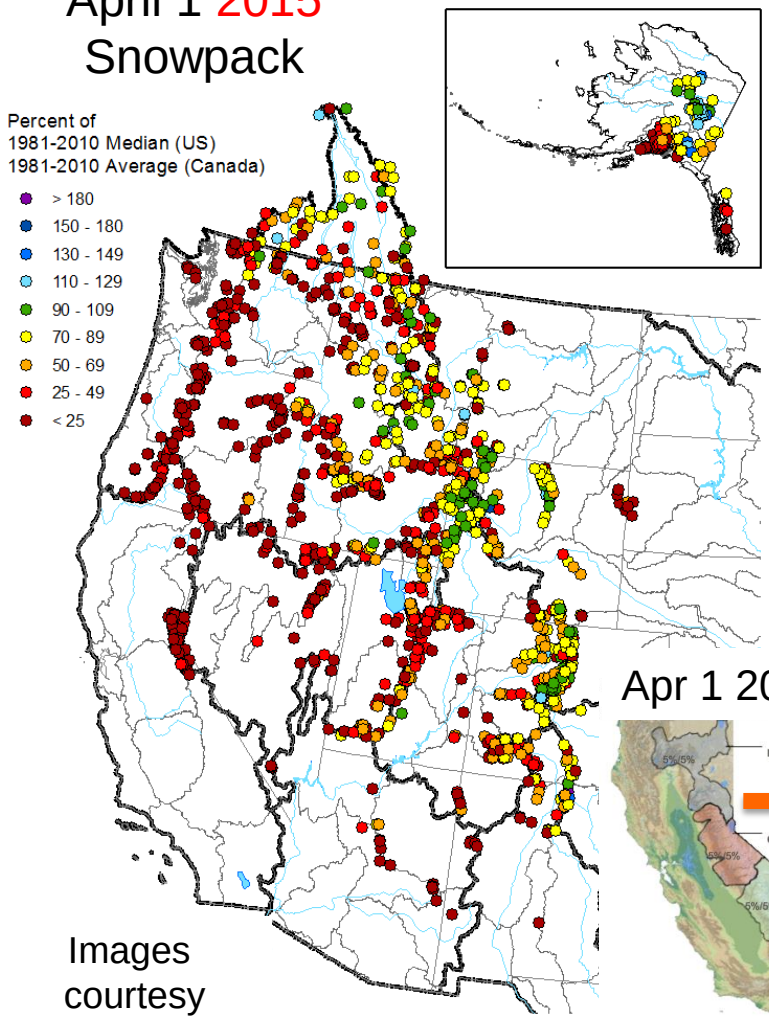
(↑ 1.1 percentage points since early March)

- Improvement: Pacific Northwest, Northern California, Southern Plains
- Degradation: Southwest, Central Plains, Northern Plains, Mid-Atlantic
- Outside CONUS: Worsening drought for all of Hawaii



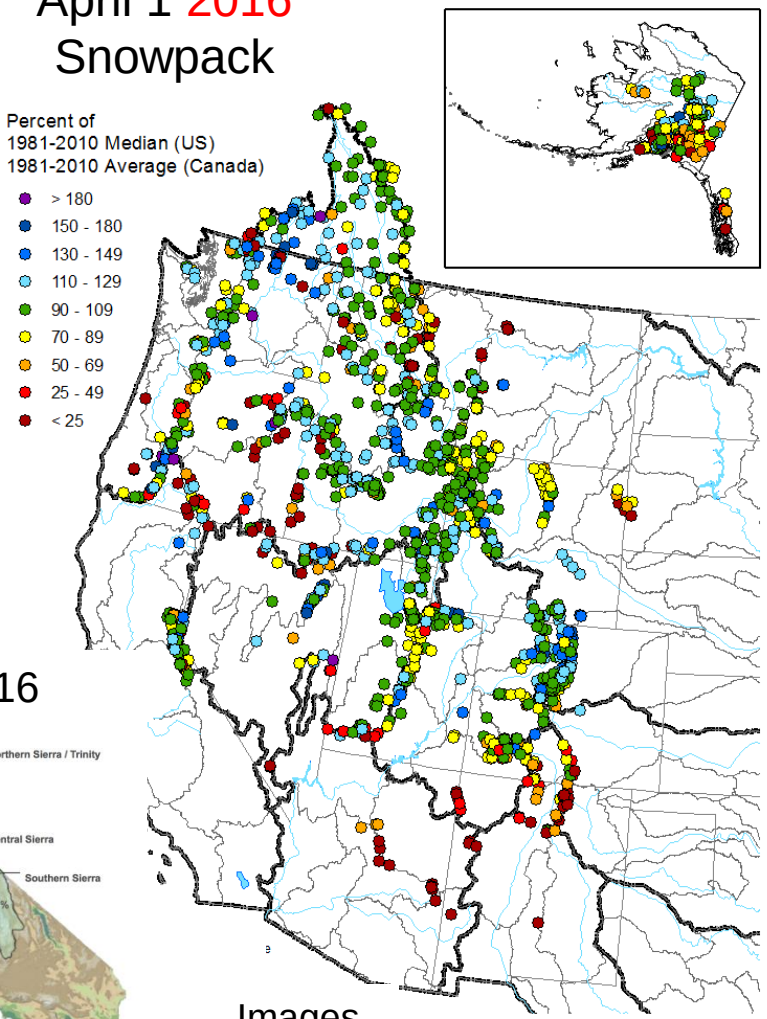
Western U.S. Snowpack

April 1 2015 Snowpack



Images courtesy USDA NRCS

April 1 2016 Snowpack



Images courtesy CA DWR

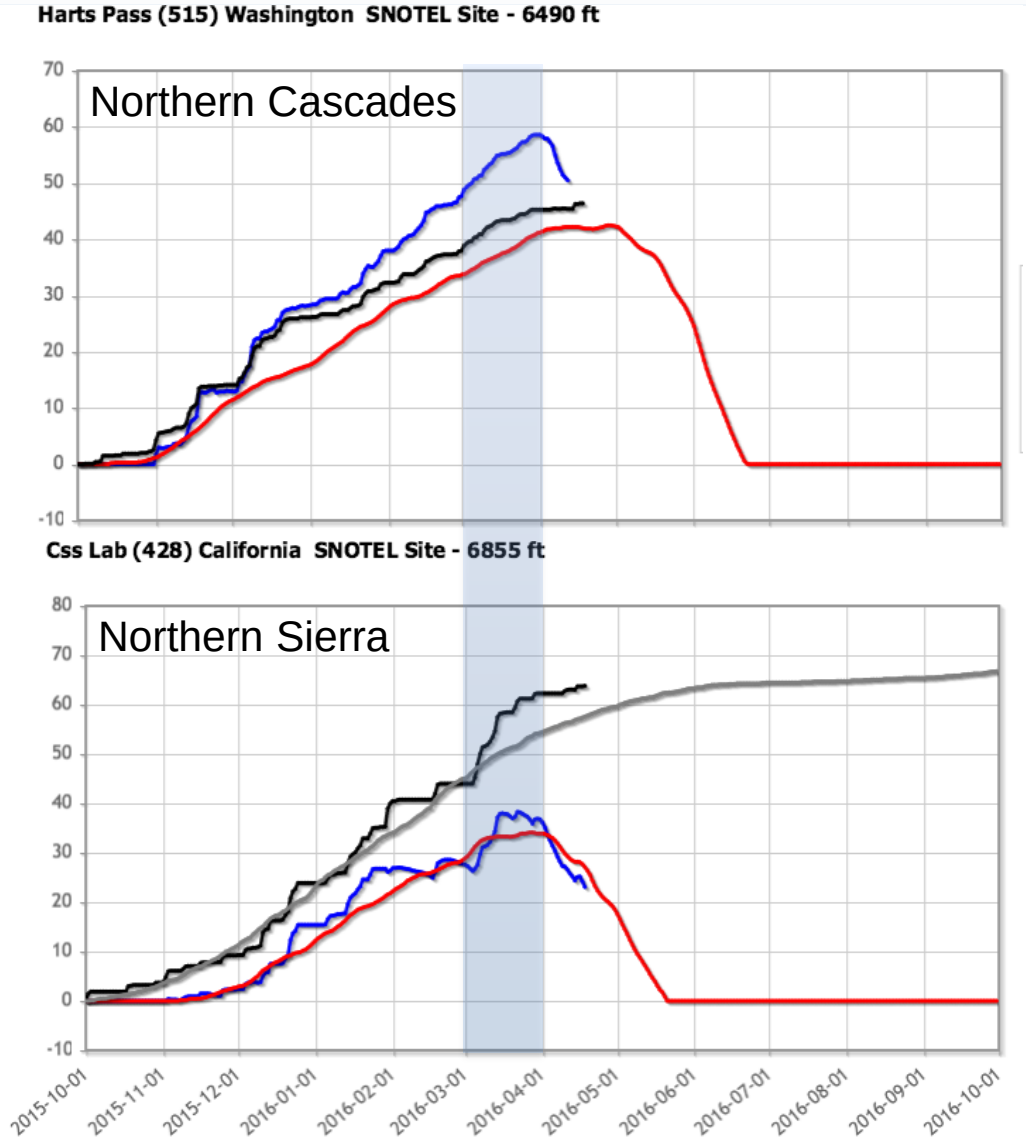
Apr 1 2015

5% normal SWE

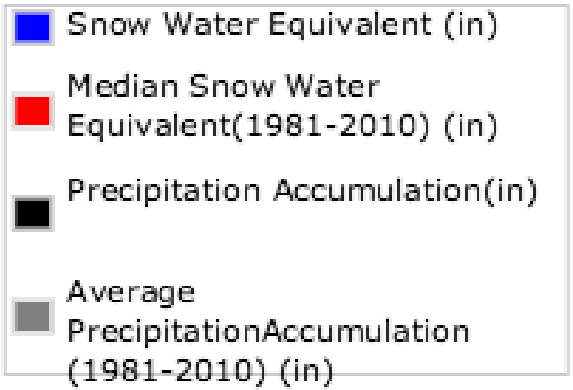
Apr 1 2016

85% normal SWE

Western U.S. Snowpack



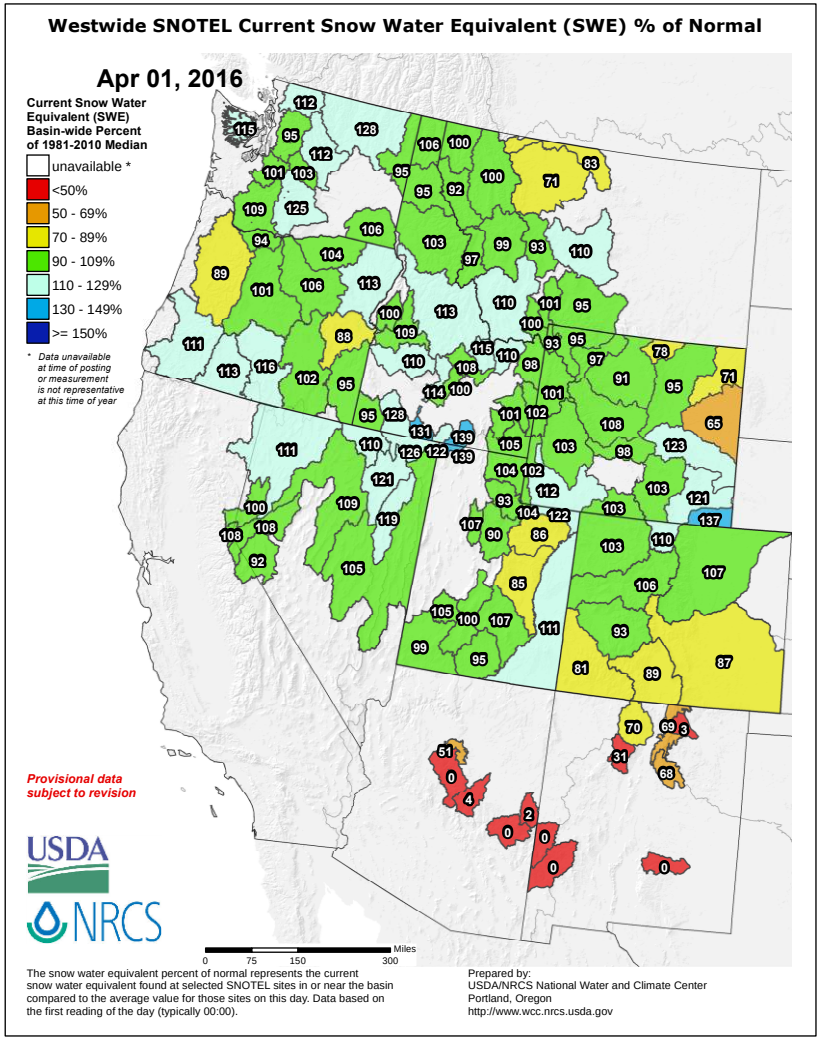
Snowpack peak in March (highlighted), earlier than median. Quick decline in first half of April



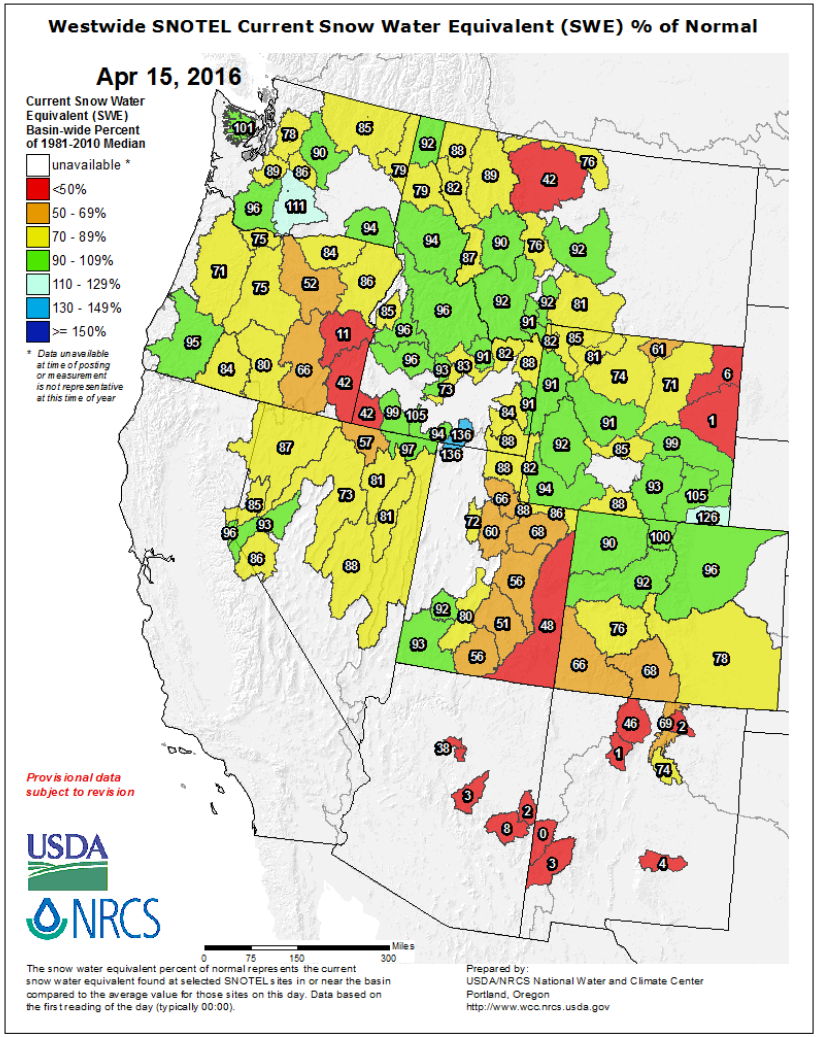
Images courtesy USDA NRCS

A regional perspective

April 1 2016 - % normal SWE

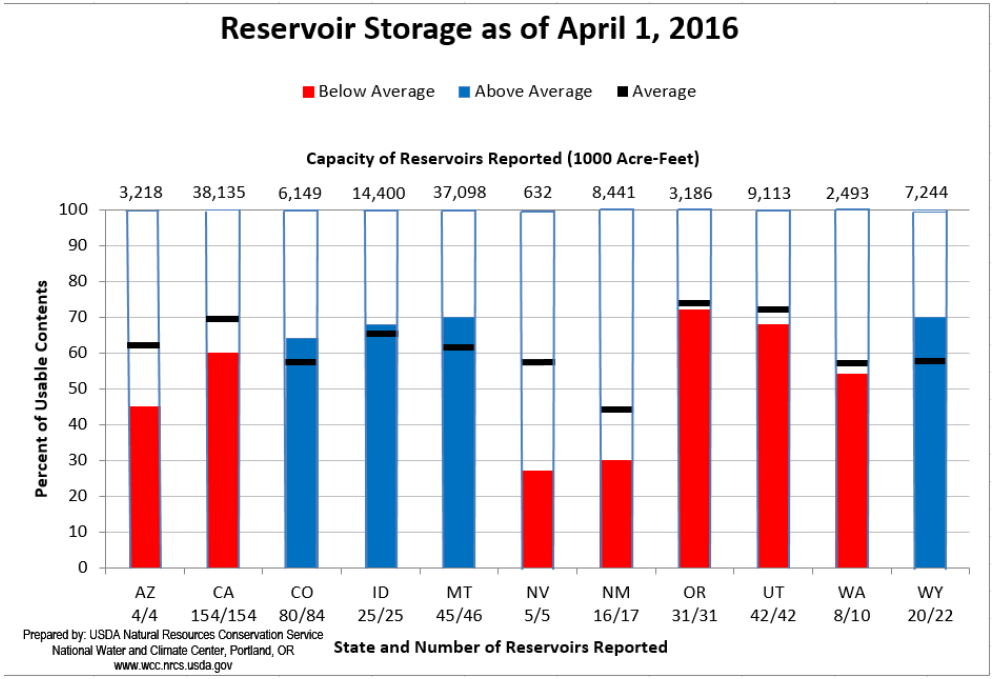


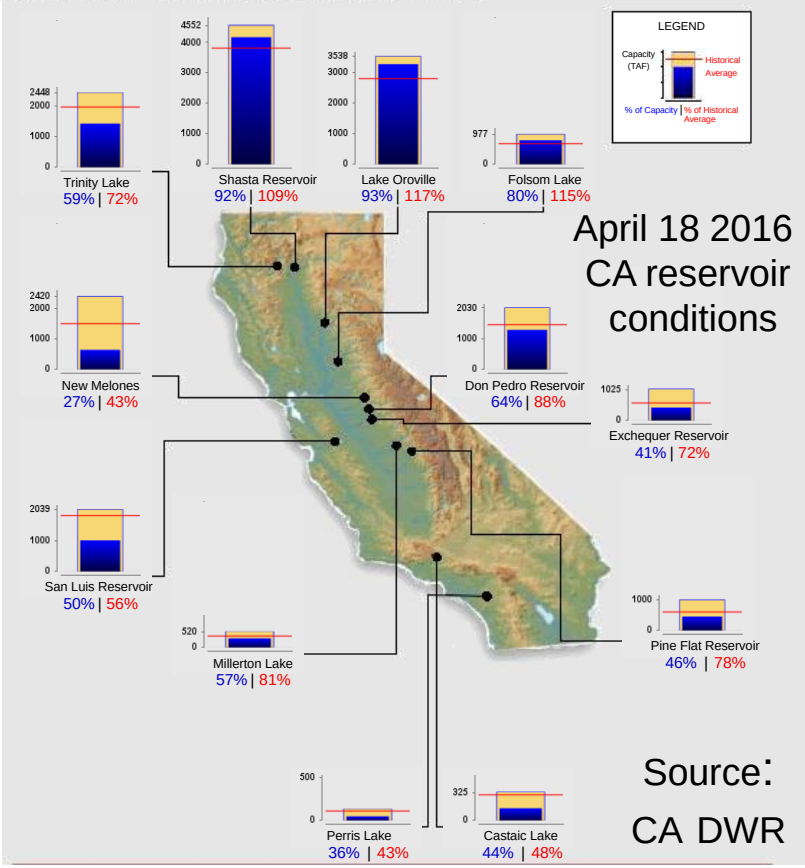
April 15 2016 - % normal SWE



Water Resources

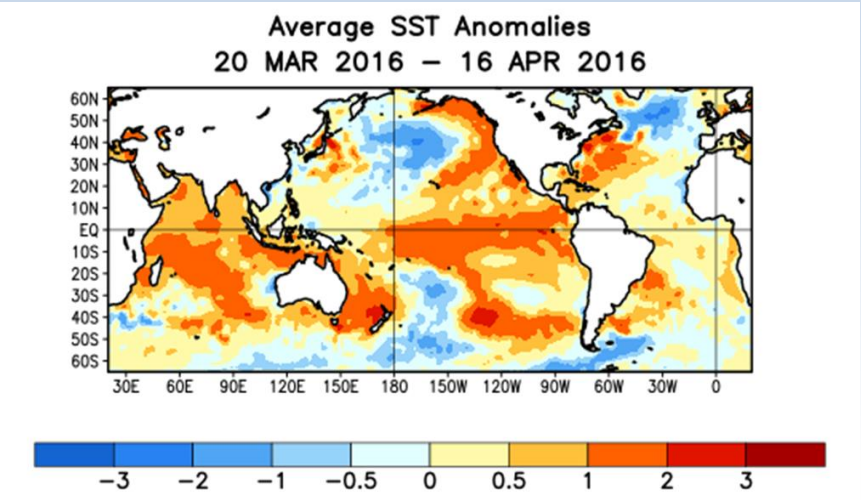
- Large northern CA reservoirs above normal storage
- Many key reservoirs still below normal
- Impacts of multi-year drought still affecting the state



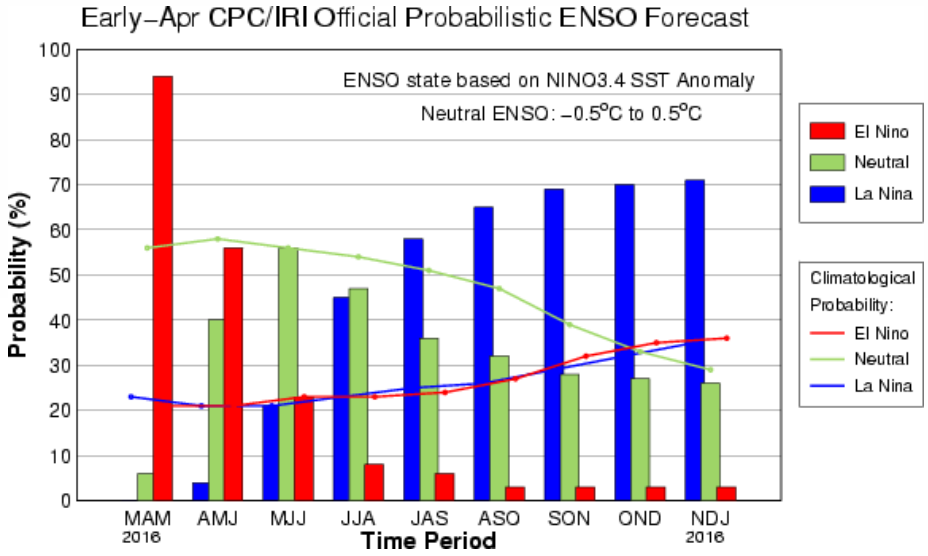


- OR, WA near normal storage
- CA, NV, NM, AZ below normal–drought conditions introduced/expanded this winter in AZ/NM

Sea Surface Temperatures and ENSO



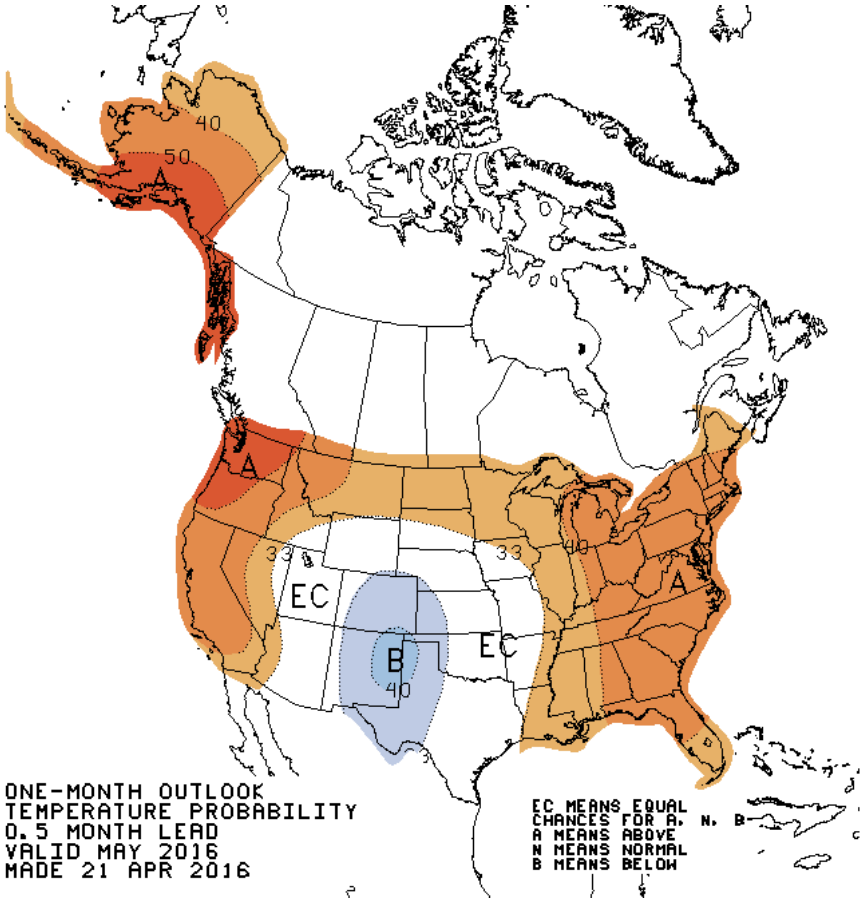
- Sea surface temperatures
  - Above normal SSTs across the equatorial Pacific
  - Above normal SSTs along the west coast of North America
  - El Nino Advisory remains in place



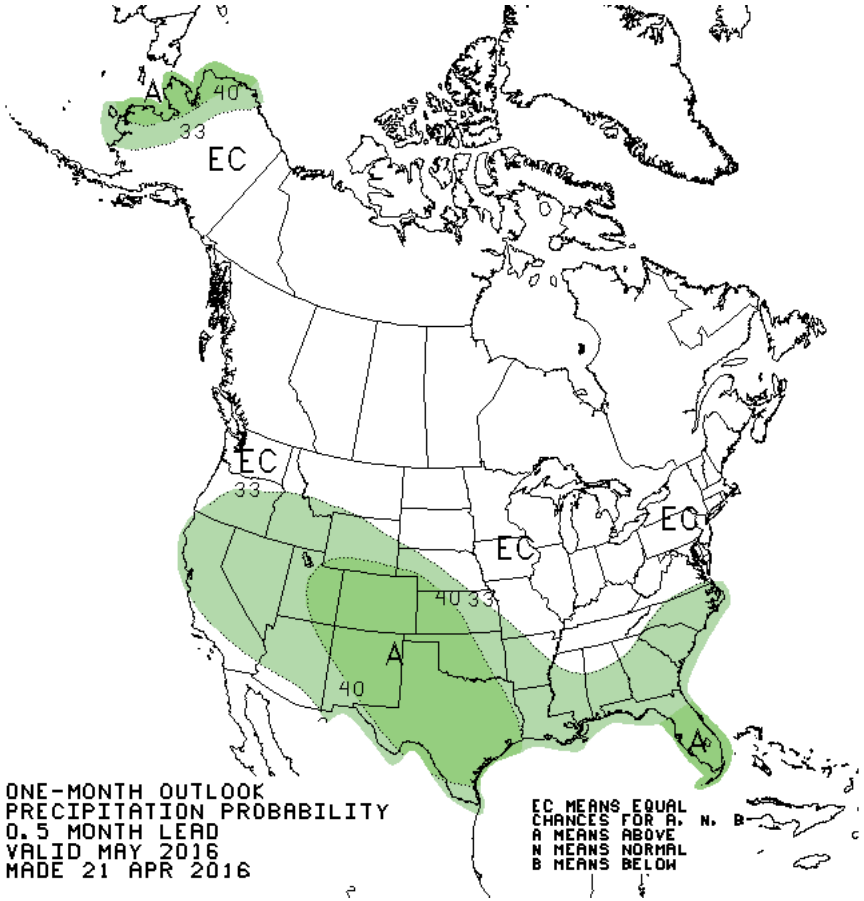
- ENSO forecast
  - El Niño is forecast to continue to weaken
  - A transition to ENSO neutral is likely during spring or early summer 2016
  - La Nina Watch issued

Monthly Forecast (May)

May Average Temperature Probability

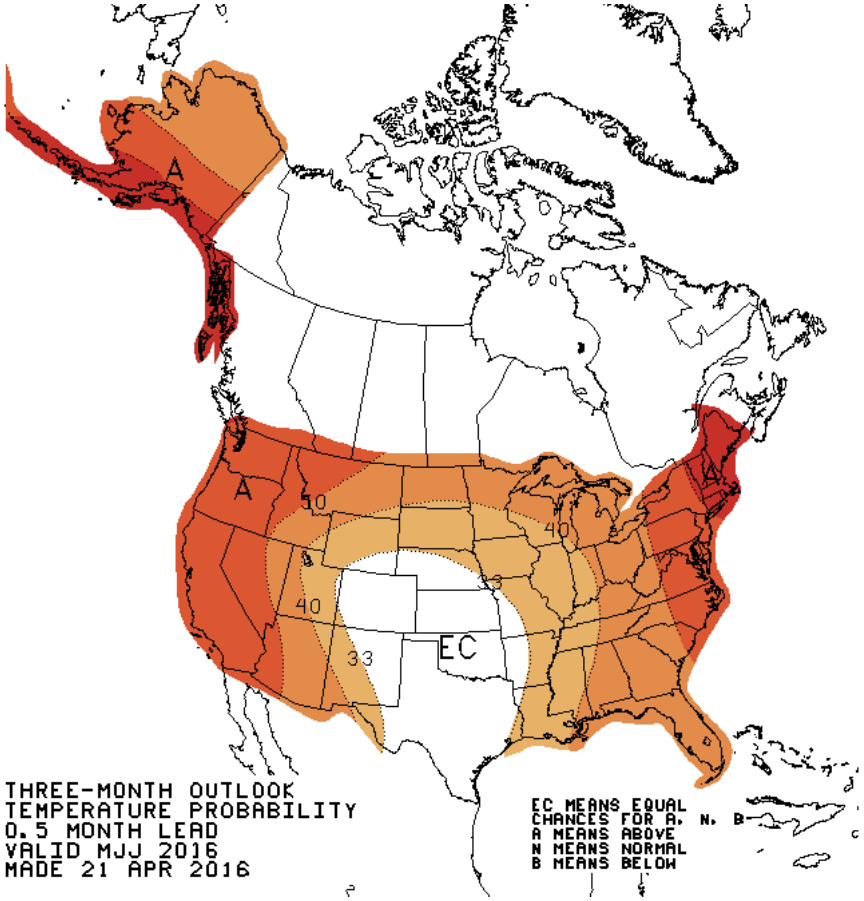


May Total Precipitation Probability

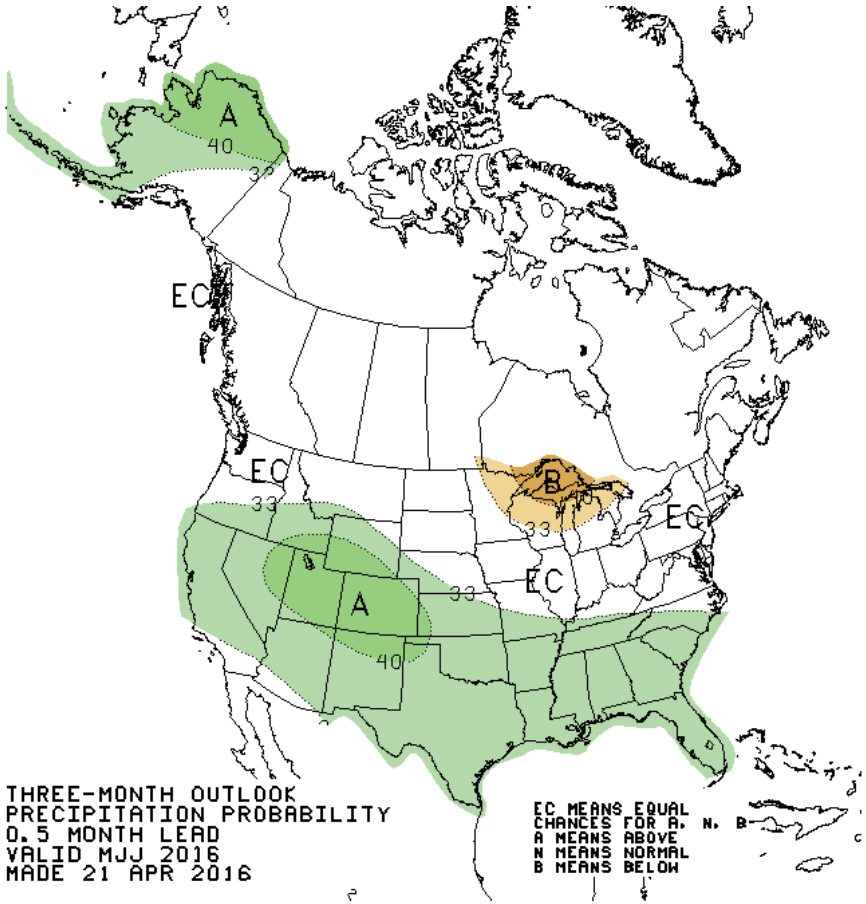


Seasonal Forecast (May–Jun–Jul)

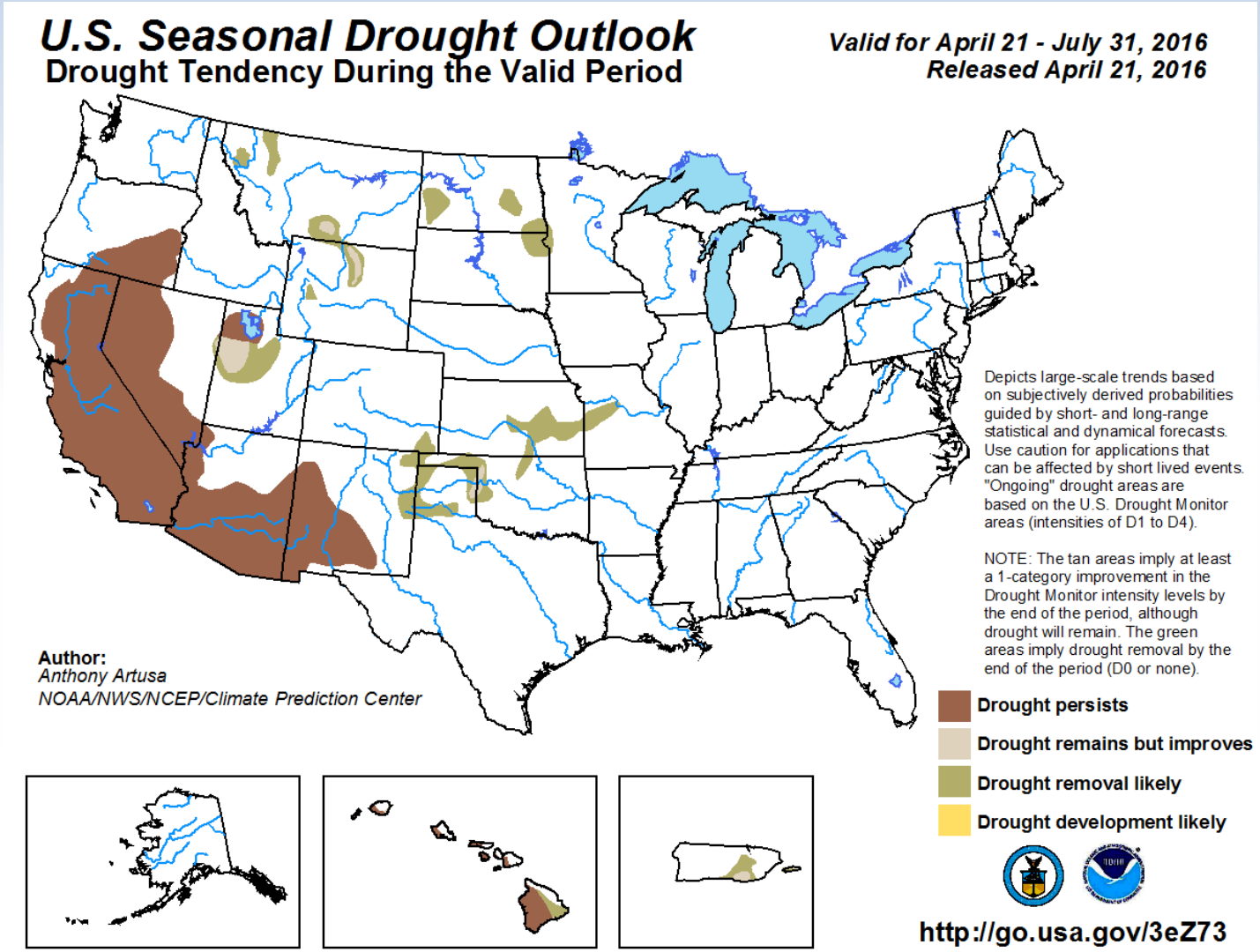
May-Jun-Jul Average Temperature Probability



May-Jun-Jul Total Precipitation Probability



U.S. Drought Outlook



For More Information

TODAY'S PRESENTATION:

- http://www.ncdc.noaa.gov/sotc/briefings

NOAA's National Centers for Environmental Information: www.ncdc.noaa.gov

- Monthly climate reports (U.S. & Global): www.ncdc.noaa.gov/sotc/
- Dates for upcoming reports: http://www.ncdc.noaa.gov/monitoring-references/dyk/monthly-releases

NOAA's Climate Prediction Center: www.cpc.ncep.noaa.gov

Western Regional Climate Center: http://www.wrcc.dri.edu/

U.S. Drought Monitor: http://drought.gov

Climate Portal: www.climate.gov

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